

REMARKS/ARGUMENTS

This amendment is being filed concurrently with an RCE.

Claims 6-11, 20-25, and 29-34 are pending. Claims 40-42 have been added to further define the invention. No new matter has been added as a result of these amendments.

Claim Rejections under 35 U.S.C. 103

Claims 6, 20, and 29 were rejected under 35 U.S.C. 102(b) as being anticipated by Yan ("Yan" hereafter) (U.S. Patent No. 5,438,374) in view of Hayashi (US Patent No. 6,041,145 in further view of Hui (US Patent No. 5,260,782). These rejections are traversed in light of the amendments and arguments discussed below.

With regard to claims 6, 20, and 29 the Examiner asserts that Yan discloses the feature of calculating a local gradient indicative of a region type. This feature was further defined in the previous amendment to specify that the calculating is within a frame of the video signal, and the region type is one of an edge region or a smooth region. Yan calculates differences between frames to determine motion between the frames (see column 6, lines 30-45). In order to calculate the temporal difference as alluded to by the Examiner, Yan must use different frames as a temporal filter requires different time points for frames. This is completely different than the current claim which specifies that the gradient is calculated within a single frame and not between different frames as Yan requires for the temporal filter. The Examiner has ignored these features of the claim and has copied the same response from the previous office action without considering each feature of the claims. In an effort to further point out that the current claims are directed to within a frame the Applicants have specified a single frame is where the gradient is calculated. The Applicants respectfully request that the Examiner

elaborate as to how Yan discloses calculating the local gradient within a single frame as specified in claims 6, 20, and 29, when Yan specifically states that the gradient is calculated between frames as is required for a temporal filter. Applicants request that the Examiner provide further details as to how a temporal filter as required by Yan can be calculated within the same frame if this rejection is maintained as a temporal filter requires different frames for temporal aspects. Yan is also silent as the region being a smooth region or an edge region, as acknowledged by the Examiner. Moreover, as the local gradient is calculated within the frame for the present claims, Yan fails to disclose the feature of determining a weight factor based upon the local gradient as the local gradient of Yan is determined between frames and not within a frame. Furthermore, the gradient referred to by the Examiner is for the same point between frames to determine differences due to motion. Yan fails to disclose the feature of applying the weight factor to a difference signal according to the region type, the difference signal representing a difference between the video signal and an output of a smoothing filter through which the video signal passes. The difference signal referenced by the Examiner in Yan is a signal that measures differences between a current frame and an adjacent frame (see column 6, lines 36-45) at the same position in respective frames. The difference signal as defined in claim 6, 20, and 29 as amended, is the difference between the single frame of the video signal and an output of a smoothing filter which data representing the single frame of the video signal passes. Yan does not disclose anything remotely similar to this feature.

As acknowledged by the Examiner, Yan does not teach the feature of the region type is one of an edge region or a smooth region. The Examiner asserts that Hui discloses this feature and that one skilled in the art would have modified Yan as taught by Hui. Yan performs temporal filtering between frames, while the present application is concerned with filtering of pixels within a single frame. In Yan, the same point of

different frames is compared (see column 6, lines 42-44). Yan simply will not work if modified to look at data within a single frame as there is no temporal aspects to data within a single frame. However, the Examiner ignores this fact and states that it would be obvious to modify Yan from its intended purpose to calculate a neighborhood of data within a single frame when the whole purpose of Yan is to reduce temporal noise by frame averaging between different frames (see column 1). Applicants respectfully request that the Examiner elaborate as to how a temporal filter for motion calculations between frames can be modified from its intended purpose in order to calculate differences within a neighborhood of a single frame and still provide a calculation as to motion differences between frames if this rejection is maintained. Accordingly, claims 6, 20, and 29, and the corresponding dependent claims are allowable for at least these reasons.

The Applicant respectfully submits that all of the pending claims are in condition for allowance. Therefore, a Notice of Allowance is requested. If the Examiner has any questions concerning the present Response, the Examiner is kindly requested to contact applicant's attorney, Michael L. Gencarella (44,703) at (408) 774-6921.

Respectfully submitted,

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